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# LANL Recovery Act News Flash

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## Digging Up the Past Yields Few Surprises

Few surprises have surfaced during the excavation of a 67-year-old waste disposal site at Los Alamos National Laboratory.

"For the most part, what we've uncovered has been run-of-the-mill trash," said Gordon Dover, executive director of the Recovery Act projects at the Lab. "We've dug up cardboard boxes, wood, pipes—the kinds of things you'd expect to find."

Other items discovered include glass Coca-Cola bottles of the kind seldom seen anymore and a calendar from 1943. Local lore has it that a truck used at the Trinity test, the first test of an atomic weapon, is buried in MDA-B, but to date there's been no sign of it.

The waste disposal site known as Material Disposal Area B, or MDA-B, is the Lab's oldest waste dump. It was used from 1944-48 to dispose of waste from laboratories and processing facilities involved in plutonium processing. It was closed in 1948 after trash inside it spontaneously combusted for the third time and spewed pink smoke across the mesa.

MDA-B consists of narrow pits up to 30 feet deep and 12 feet wide that dogleg about a half mile down a narrow strip of 10 acres. Initially chosen as the site for waste disposal because of



*Excavation inside an enclosure at MDA-B.*

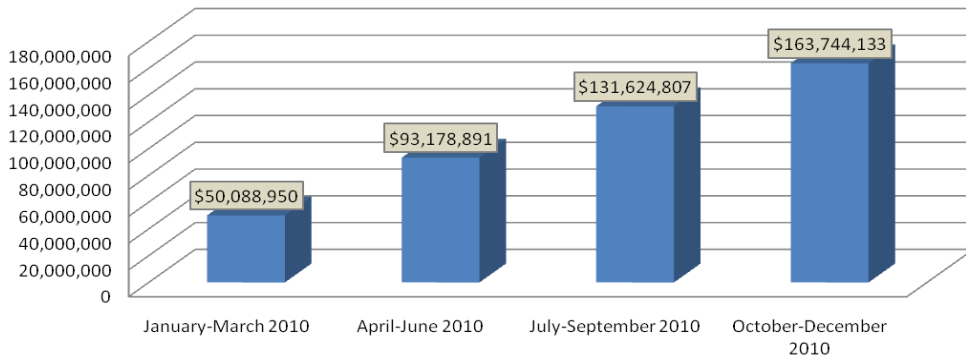
its distance from downtown Los Alamos, MDA-B is now bordered by a number of businesses.

"The proximity of local businesses and the purpose MDA-B was used for make excavating it an exercise in caution," Dover said. "Safety is our first priority."

Safety precautions include excavating inside large metal structures equipped with fire suppression systems, high efficiency particulate air (HEPA) filtering and real-time air monitoring. After a pipe with a high

*(continued on page 2)*

### LANL Recovery Act spending (running total)





***"It's all about environmental stewardship."—ARRA Projects Executive Director Gordon Dover***

This News Flash is provided by the Environmental Programs Directorate of Los Alamos National Laboratory.

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## Clothing Saves Funds and Space

The Lab will save nearly \$1 million and reduce the amount of material sent to a disposal facility by providing workers with protective clothing made from a recyclable fabric.

Called OREX, the fabric is an organic polymer that is sent to a treatment facility in Oak Ridge, Tennessee, where it can be dissolved and returned safely to nature, saving both disposal costs and space in landfills.

The cost of the treatment that dissolves the material is included in the initial price of the clothing.

The fabric is being used for worker protection clothing at a \$94 million Recovery Act project at LANL. The project involves excavating the Lab's oldest waste disposal site, Material Disposal Area B, used from 1944-48.

About 40 of the 100 workers on the project wear



*An excavator operator wears protective clothing made of OREX.*

clothing designed to protect them from potentially radioactive materials. Protective clothing includes coveralls, shoe covers, gloves and hoods, and because radiation is harmful if inhaled, workers also use supplied air.

The excavation is done inside sturdy metal enclosures to protect the public and the environment.

By using protective clothing made from OREX, the Lab estimates it will save

at least \$840,000 in disposal costs and prevent about 200 cubic yards, or as many as 100,000 items of protective clothing, from being sent to a waste disposal facility.

"In addition to cleaning up a 1940s-era waste disposal site, we aren't generating additional waste," ARRA Projects Executive Director Gordon Dover said. "It's all about environmental stewardship."

## Digging...(continued from page 1)

radioactivity level was uncovered, the team installed FIDLAR sensors on excavators to detect radioactivity as soon as it is unearthed.

With about 60 percent of the excavation completed, more than 300 grams of plutonium have been unearthed with the debris at MDA-B, most of it dust in the soil. This exceeds the initial estimates of potential plutonium contamination in MDA-B by about 100 grams.

"Clothing and other contaminated items were buried in MDA-B in boxes and other containers that were not

necessarily waterproof," Dover said, "so over the past six decades some of the contamination leached into the soil."

The team performed more than 80 core samples on MDA-B before excavation began to determine what might be buried in the pits, but a lack of records from 67 years ago and the nature of the work done in the 1940s made cautious excavation a necessity.

"We've worked closely with our partners at the Department of Energy to do this work safely and efficiently," Dover said.

When the excavation of MDA-B is completed this spring and clean, fresh dirt replaces the cardboard, Coke bottles and contamination of 67 years ago, the 10 acres formerly known as MDA-B will be restored to residential standards, meaning the land will be clean enough to build houses, a school or even a playground on it.

"The unknowns of excavating such an old waste disposal site have made this project a challenge," Dover said, "but the land will be able to be reclaimed, and that's exciting."